

Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford (RL-0040)

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*231-Z filter removal
preparations*



Borehole drilling BC Crib



*U Plant removal
of exhaust fan*

Overview

This section addresses Project Baseline Summary (PBS) RL-0040, *Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford*. There are three major components to this work scope:

- Deactivation & Decommissioning (D&D) [R. E. Wilkinson],
- Waste Sites Remediation [B. H. Ford], and
- Reliability Projects [R. G. Slocum].

NOTE: Unless otherwise noted, all information contained herein is as of the end of February 2008.

Notable Accomplishments

Deactivation and Decommissioning

241-U-361 Settling Tank Sample Analysis and Characterization

- Submitted 241-U-361 Characterization Report to RL March 4, 2008.

231-Z Inventory Reduction

- Received preliminary Non-Destructive Assay (NDA) results.
- Awarded shipping container design and fabrication contract.

BC Control Area

- Initiated the BC Control Area (BCCA) Engineering Evaluation/Cost Analysis (EE/CA) 30-day public review on February 25, 2008.
- Submitted the historical/cultural and biological/ecological review to RL for subsequent re-transmittal to the regulators for a 15-day public review.

Waste Site Remediation

- Completed drilling and sampling of 216-B-55 Trench; decommissioned two of six boreholes (SC-1).
- Completed first borehole at BC Cribs; initiated drilling of boreholes 2 and 3 (BC-1).
- Completed removal of borehole casings as part of 216-A-2 borehole decommissioning (MW-1).
- Completed field preparation to begin drilling A30 borehole; initiated drilling March 4, 2008 (SC-1).
- Received U.S. Environmental Protection Agency (EPA) approval for the Model Group 5 Sampling Analysis Plan; initiated field work planning.
- Completed West Lake Data Quality Objectives review workshops with the Washington State Department of Ecology (Ecology) (UR-1).

Reliability Projects

- Completed Project L-641, *273E Safety Enhancements*, definitive design and bid package preparation.
- Submitted DOE Order 430.1B, *Real Property Asset Management, Quality Assurance Program Plan*, to RL for approval.

FY 2008 Funds vs. Spend Forecast (\$M)

	Projected FY 2008 Funding	FY 2008 Fiscal Year Spending Forecast	Variance
RL-0040 Nuclear Facility D&D, Remainder of Hanford	\$ 86.8	\$ 77.8	\$ 9.0

Schedule/Cost Performance (\$M)

Nuclear Facility D&D, Remainder of Hanford	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance \$	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion (FY08/ CTD)
Current Period (Month)	\$5.1	\$3.7	\$3.8	-\$1.4	-27.3%	-\$0.1	-2.8%	\$73.8
Cumulative-to-Date (FY 2004-Present)	\$279.5	\$270.6	\$268.9	-\$8.9	-3.2%	\$1.7	0.6%	\$329.4

Numbers are rounded to the nearest \$0.1M.

CTD Schedule Performance (-\$8.9M/-3.2%):

The unfavorable schedule variance (SV) for the D&D Project organization (-\$1.2M) is due to:

- Delays in the UW-1 Record of Decision (ROD) (-\$1.0M), which have also caused delays in the Treatability Test and RAWP scope. A revised plan has been briefed to RL and a Baseline Change Request (BCR) is in development to resequence the scope.
- Delays in preparing the work packages for REDOX EF-2 fan repairs due to lack of critical resources (-\$0.2M).

The unfavorable schedule variance for Waste Site Remediation (-\$7.4M) is largely due to the following:

- Delays in 200-CW-1 – Sampling Analysis Plan (SAP) approval (-\$3.2M).
- Delays in 200-SC-1 – Work Plan approval (-\$0.6M).
- Delays in 200-MW-1; late SAP approval, driller availability for A-2 Borehole, and delays on the ERC data analysis (-\$0.8M).
- Delayed start of 200-BC-1 field work (-\$0.6M); schedule will be recovered.
- Central Plateau Integration and Planning – slow start on remaining planned engineering studies (-\$0.3M)
- Miscellaneous small delays across the project due to weather and delayed regulator approvals (-\$1.9M).

The unfavorable SV for Reliability Projects (-\$0.3M) is within established thresholds.

CTD Cost Performance (+\$1.7M/+0.6%):

The favorable cost variance (CV) for D&D (+\$2.8M) is primarily due to the following:

- Prior year cost overruns in 200-UW-1 U Zone Waste Site Remediation (-\$4.7M) resulting from:
 - Additional direct push sampling during field investigation to determine contamination levels.
 - Greater than planned effort to resolve Feasibility Study/Planning Package (FS/PP) comments and Remedial Design SAP.
 - Delays in barrier construction without reductions in staffing levels.
 - Lateral spread of contamination at 200-W-42, resulting in more waste containers being shipped to the Environmental Restoration Disposal Facility (ERDF) than planned.
- Prior year efficiencies in Surveillance and Maintenance (S&M) staff resulting from not replacing budgeted staff, and loaned labor to higher priority projects within D&D. Also due to lower than planned corrective maintenance in prior years (+\$2.7M).
- Prior and current year variance distributions (passbacks) (\$4.5M); and
- Miscellaneous (-\$0.3M).

Schedule/Cost Performance (\$M), continued

CTD Cost Performance (+\$1.7M/+0.6%), continued:

The unfavorable cost variance for Waste Site Remediation (-\$1.8M) is largely due to the following:

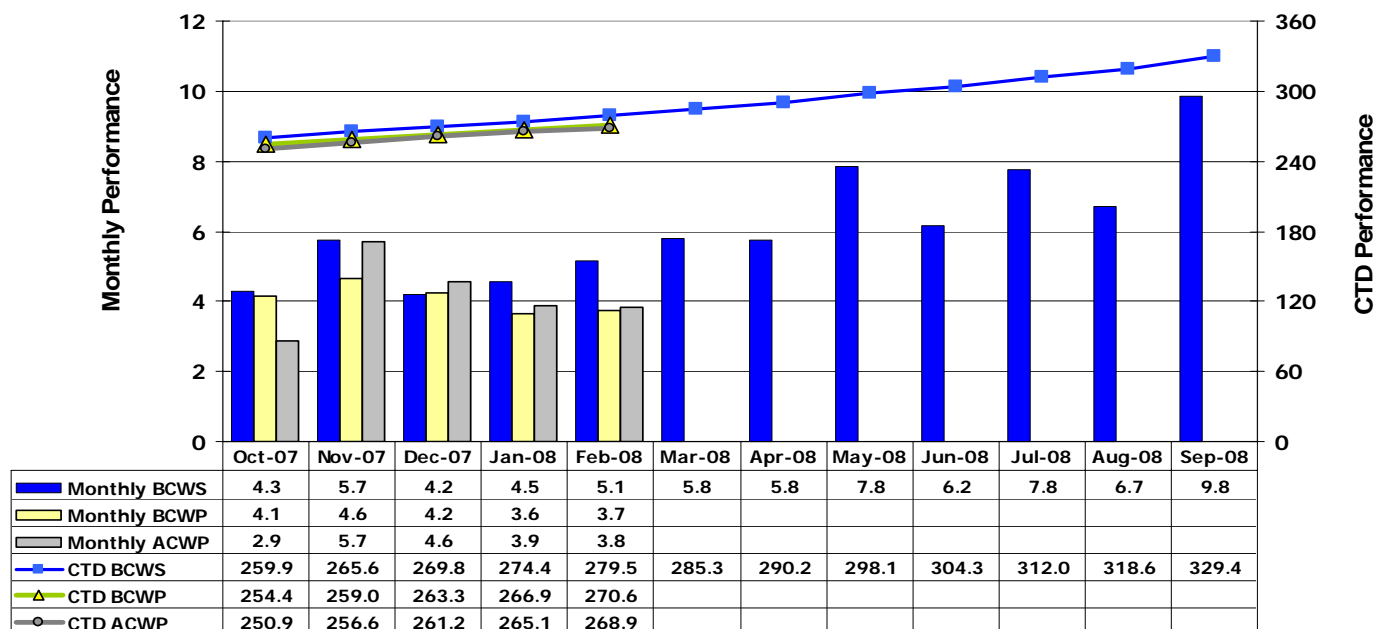
- Remedial investigation costs for 200-PW-2/4 and prior year costs for the 200-PW-1 Z-9 slant borehole (-\$3.6M).
- Prior year overruns associated with 200-LW-1 boreholes (-\$1.5M).
- Offset by significant favorable passbacks to the project and miscellaneous cost under runs in several operable units (+\$3.3M).

The favorable CV for Reliability Projects (+\$0.3M) is primarily due to the following:

- Efficiencies and favorable bids in prior year electrical projects (+\$1.5M), road refurbishments (+\$0.7M), capital equipment procurements (+\$1.0M), Real Estate and Site Planning (+\$0.4M), and project L-429, *12-Inch Water Line Mortar Lining Along 4th Street from Baltimore to Canton*, (+\$0.5M).
- Offset by increase in steel prices for prior year facility and water projects (-\$3.3M), and prior year telecommunication projects technology deployment (-\$0.5M).

The favorable CV for Closure Services (+\$0.4M) is within established thresholds.

Performance Analysis CTD and Monthly (\$M)



Milestone Achievement

Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) milestones represent significant events in project execution. DOE Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The FY 2008 Enforceable Agreement milestone information provided herein is based upon the current baseline including RL-approved changes. Changes from month-to-month in both the total number of milestones to be completed and in the forecast status of upcoming milestones are the result of BCRs approved during the reporting period.

Milestone Number	Title	Type	Due Date	Actual Date	Forecast Date	Status / Comments
CPDD-07-004	212-N nuclear facility hazard reduction and downgrade completed	RL	11/30/07	10/25/07		Complete
M-091-40L-016	M-91-40L.4.D Quarterly Burial Ground vent/substrate sampling results (1st Qtr 2008)	HQ	12/15/07	11/21/07		Complete
CPDD-07-008	Complete Construction of Project L-626, 100B-A Water System Enhancement	RL	12/31/07	12/11/07		Complete
M-091-40L-017	M-91-40L.5.A Quarterly Burial Ground vent/substrate sampling results (1st Qtr 2008)	HQ	3/15/08	2/25/08		Complete
CPDD-07-010	Complete phase one of the BC Cribs and Trenches Treatability Test Plan	RL	3/30/08		3/28/08	Ahead of schedule
CPDD-08-001	241-U-361 Settling Tank Characterization and Sampling completed	RL	3/31/08	3/4/08		Complete
M-091-40L-018	M-91-40L.5.B Quarterly Burial Ground vent/substrate sampling results (2nd Qtr 2008)	HQ	6/15/08		6/15/08	On schedule
CPDD-08-004	Complete phase 2a of the BC Cribs and Trenches Treatability Test Plan	RL	7/31/08		7/31/08	On schedule
CPDD-08-008	Submit Draft A revised Feasibility Study Report and revised Proposed Plan for the 200-CW-5, and 200 SC-1 Operable Units	HQ	7/31/08		7/31/08	On schedule
M-091-40L-019	M-91-40L.5.C Quarterly Burial Ground vent/substrate sampling results (3rd Qtr 2008)	HQ	9/15/08		9/15/08	On schedule
CPDD-08-003	Complete characterization of potential contamination plume in the BC Cribs and Trenches	RL	9/30/08		9/30/08	On schedule
CPDD-08-006	Complete 231Z nuclear facility hazard reduction	RL	9/30/08		8/27/08	Ahead of schedule
CPDD-08-011	Excavate 20,000 Tons of contaminated soil at BC Control Area	RL	9/30/08		9/9/08	Ahead of schedule